



Impact of septoplasty on quality of sexual life of males with nasal septal deviation

Nazal septal deviasyonu olan erkek hastalarda septoplastinin cinsel yaşam kalitesi üzerine etkisi

Septoplasty and quality of sexual life of males

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Öz

Amaç: Bu çalışmanın amacı nazal septum deviasyonu(NSD) olan erkeklerin cinsel yaşam kalitesini değerlendirmektir. Ayrıca, septoplasti operasyonun cinsel yaşam kalitesi üzerine etkileri değerlendirilmiştir. Gereç ve Yöntem: 30 NSD olan ve 30 nazal deformitesi olmayan kontrol grubu çalışmaya dahil edildi. Bireylerin cinsel yaşam kalitesini değerlendirmek için Uluslararası Erektile Fonksiyon Anketi kullanıldı. Bulgular: Erektile fonksiyon, orgazmik fonksiyon, seksüel istek, ilişki tatmini, genel tatmin skorlarının ortalama değerleri NSD grubunda kontrol grubuna göre anlamlı derecede düşük izlendi($p \leq 0,05$). NSD grubunda tüm parametrelerin ortalama değerleri septoplasti öncesi ve sonrası anlamlı derecede farklı idi($p \leq 0,05$). Tartışma: Nazal septum deviasyonunun erkek cinsel yaşam kalitesi üzerine negatif etkileri var gibi görünmektedir. Ayrıca NSD olan hastaların septoplasti ile burun tıkanıklığının giderilmesi ile seksüel performanslarında anlamlı derecede düzelme saptanmıştır.

Anahtar Kelimeler

Nazal Septum Deviasyonu (NSD); Cinsel Yaşam Kalitesi; Uluslararası Erektile Fonksiyon Anketi

Abstract

Aim: The aim of this study is to evaluate the quality of sexual life of males with nasal septal deviation (NSD). Also, we aimed to find out the impact of septoplasty operation on quality of sexual life. Material and Method: 30 patients with NSD and 30 control subjects with no nasal deformity were included in the study. International Index of Erectile Function Questionnaire (IIEF) was used to evaluate the quality of sexual life of the subjects. Results: The mean scores of erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction for NSD group were significantly lower than control group ($p \leq 0.05$). The mean scores for all domains were significantly different before and after septoplasty in NSD group ($p \leq 0.05$). Discussion: NSD seems to have negative effects on quality of sexual life in males. Also, we detected that a significant improvement in sexual performance can be provided by the treatment of nasal obstruction by septoplasty in patients with NSD.

Keywords

Nasal Septal Deviation (NSD); Quality of Sexual Life; International Index of Erectile Function Questionnaire (IIEF)

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Introduction

Nasal obstruction is one of the most common complaints presenting to otorhinolaryngological practice. Nasal obstruction can be caused by nasal septal deviation (NSD), turbinate hypertrophy, adenoid hypertrophy, and nasal polyposis. The prevalence of nasal deformity in general population is estimated to be 75%- 80%[1]. NSD is a common cause of nasal obstruction. Septoplasty is the definitive treatment for nasal septal deviation[2]. NSD causes upper airway obstruction that leads to chronic hypoxia and hypercarbia because of alveolar hypoventilation[3].

Sexual dysfunction in chronic diseases has recently attracted attention owing to its impact on quality of life. The impact of vertigo, sensorineural hearing loss (SNHL), obstructive sleep apnea (OSAS), allergic rhinitis (AR) and halitosis on sexual life have been previously investigated in the literature. Erectile dysfunction was reported in men with Meniere's disease and SNHL[4-6]. Moreover, OSAS is reported to decline quality of sexual life, and a significant improvement was detected with apnea treatment[7]. Also, patients with AR had significantly worse sexual function than the non-AR patients[8]. Also, males with halitosis were reported to have poorer sexual life[9]. However, there is no previous study that investigated the association between NSD and sexual dysfunction. In this study, we aimed to compare the quality of sexual life of males with NSD with an age and body mass index (BMI) matched group of healthy men by using the International Index of Erectile Function Questionnaire (IIEF). Also, we aimed to find out the impact of septoplasty operation on quality of sexual life.

Material and Method

Study population

30 patients with NSD and 30 control subjects with no nasal deformity completed the study. Males between 20-50 years old; attended with a complaint of nasal obstruction and diagnosed with NSD after rhinological examination; married and able to complete the study were included in the study. The exclusion criteria were: ages below 20 years or over 50 years; single or widowed; lack of mental capacity; previous sexual or psychiatric disorders; use of any medication; BMI of 30 kg/m² or more; alcohol dependence and smoking. The control group was age, and BMI-matched healthy, adult, married males who have normal otorhinolaryngologic examination. IIEF was used to evaluate the quality of sexual life of the subjects.

International Index of Erectile Function Questionnaire (IIEF)
The quality of sexual life was assessed using the IIEF. This questionnaire has been widely used to evaluate male sexual function. It consists of 15 items grouped into five sexual function domains: erectile function (six questions); orgasmic function (two questions); sexual desire (two questions); sexual intercourse satisfaction (three questions); and overall satisfaction (two questions). Each question was scored from 1 to 5. The individual scores in each domain were rated to indicate the degree of clinical dysfunction; rating numbers were defined as follows: 5= no dysfunction, 4= mild dysfunction, 3= mild-to-moderate, 2= moderate, and 1= severe. Lower question scores indicate higher degrees of dysfunction, while higher scores mean healthier sexual function.

Study design

This study was carried out by the collaboration of Otorhinolaryngology and Urology departments. Questionnaires were administered to all participants by a few days. Ethics committee approval was obtained, and the study was conducted adhering to the Declaration of Helsinki. Informed consent was obtained from all subjects.

Statistical Analysis

Statistical analysis was performed using the SPSS (Statistical Package for the Social Sciences) 13.0 Evaluation for Windows. Normal distribution of continuous variables were tested with Kolmogorov-Smirnov test. Chi-square test was used for comparisons between categorical variables. Kruskal-Wallis test and Mann-Whitney U tests were used for continuous variables when comparing the groups. The statistically significant level was accepted as a p-value < 0.05.

Results

30 patients with NSD and 30 control subjects completed the study. The mean age of NSD group was 31.33±4.13, whereas it was 33.80±5.76 for control group. The mean BMI of NSD group was 23.36±1.58, whereas it was 22.90±1.42 for the control group. The groups were similar in terms of age and BMI (p=0.062, p=0.235). The mean scores of erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction in NSD and control group are shown in Table 1. The mean scores for all domains in NSD group were significantly lower than control group (p≤0.05). The mean scores of erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction in NSD group before and after septoplasty are shown in Table 2. The mean scores for all domains were significantly different before and after septoplasty in NSD group (p≤0.05).

Table 1. Scores of IIEF questionnaire in NSD and control group

	NSD group	Control group	p
Erectile function	22.56±3.00	25.16±3.43	≤0.050
Orgasmic function	8.16±1.44	9.40±0.62	≤0.050
Sexual desire	6.73±1.87	9.10±0.99	≤0.050
Intercourse satisfaction	11.13±1.71	12.43±1.61	≤0.050
Overall satisfaction	7.40±1.37	8.93±1.11	≤0.050

Table 2. Scores of IIEF questionnaire before and after septoplasty in NSD group

	NSD group	Control group	p
Erectile function	22.50±3.00	25.70±3.66	≤0.050
Orgasmic function	8.16±1.44	9.20±0.94	≤0.050
Sexual desire	6.73±1.87	8.55±2.02	≤0.050
Intercourse satisfaction	11.13±1.71	12.37±1.67	≤0.050
Overall satisfaction	7.40±1.37	8.72±1.22	≤0.050

Discussion

In this study, we found that the scores of erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction for NSD group were significantly lower than control group. This result indicates that quality of sexual life of males with NSD were poorer than healthy control subjects.

Also, we found that the scores of erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction were significantly higher in NSD group after septoplasty. That means the quality of sexual life were significantly improved after septoplasty.

Nasal obstruction is one of the most common complaints presenting to otorhinolaryngology practice. NSD is a general cause of chronic nasal obstruction. Chronic nasal obstruction leads to upper airway obstruction, chronic hypoxia, and hypercarbia because of alveolar hypoventilation[3]. The impairment of nasal breathing in patients with NSD may also cause a decline in sleep quality[10]. It is a fact that erectile function is intimately affected by sleep quality. Sleep-related nocturnal erections, called as Nocturnal Penile Tumescence (NPT), mainly occur in REM sleep [11]. Activated sympathetic nervous system because of chronic hypoxia and hypercarbia could prevent the physiological mechanisms of normal erection [12]. Additionally, chronic hypoxia deteriorates endothelial function. Low plasma levels of nitric oxide (NO), increased production of endothelin leads to vasoconstriction and antagonizes penile tumescence [13-14]. Pathophysiological mechanisms explaining the relationship between erectile dysfunction and NSD may be summarized as follows: increase in sympathetic activity, decreased production of NO and increased production of endothelin, leading to vasoconstriction, and antagonizing penile tumescence.

However, in our knowledge, there is no previous study that investigated the relationship between NSD and sexual dysfunction. In our study, we found that the quality of sexual life of males with NSD were poorer than healthy control males. Also, we found that the quality of sexual life was significantly improved after septoplasty operation.

With these findings, it can be thought that the quality of sexual life of males with NSD may be reversed by the treatment of pathologies causing chronic obstruction of the upper respiratory tract. The results of our study indicated that the impairment of sexual life of males with NSD could be treated by septoplasty.

Conclusion

In conclusion, to our knowledge, this is the first study investigating the relationship between NSD and sexual dysfunction. In this pilot study, we found that NSD has negative effects on quality of sexual life in males. Also, we detected that a significant improvement in sexual performance can be provided by the treatment of nasal obstruction by septoplasty besides medical treatment for the improvement of sexual function in patients with NSD.

Human studies: 'All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.'

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Conflict of Interest: None

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